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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/409,260	09/30/1999	JEFFREY D. SAFFER	01413.0010	5111

22852 7590 04/09/2003

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EXAMINER

MAHATAN, CHANNING

ART UNIT PAPER NUMBER

1631

DATE MAILED: 04/09/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/409,260

Applicant(s)

SAFFER ET AL.

Examiner

Channing S. Mahatan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) 2 Sheets 6) ☐ Other:

DETAILED ACTION*APPLICANTS' ARGUMENTS*

Applicants' arguments in Paper No. 18, filed 13 January 2003, have been fully considered but they are not deemed to be persuasive for the reasons set forth below. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application. Additionally, the species election requirement set forth in Paper No. 4, mailed 14 December 2002 is vacated, thus subject matter directed to biopolymer materials (protein, nucleic acid, and motif domains) are under examination. Claims 1-13 remains withdrawn from examination as not directed to the elected invention and/or subject matter.

CLAIMS UNDER EXAMINATION

Claims herein under examination are claims 14-22.

Claims Rejected Under 35 U.S.C. § 112 1st Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

NEW MATTER

Claims 14-22 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 14 (lines 9-10), 20 (line 13), 21 (line 11), 22 (line 11) and all claims dependent therefrom recites “creating a comparison matrix based on the context vector” which introduces NEW MATTER into the claims. The newly amended claim provides for the limitation of a “creating a comparison matrix based on the context vector” which removed “creating a distance matrix” from the claim 14 (Amendment “A”), however, said limitation could not be found within the disclosure. The specification states “the context vectors are used to create a distance matrix” (page 21-22 of the Specification), no other uses for context vectors are found within the specification for the creation of a “comparison matrix”. Thus, the amending of claim 14 to indicate a “creating a comparison matrix based on the context vector” is a new limitation, which does not have written basis as filed and is considered NEW MATTER.

Claims Rejected Under 35 U.S.C. § 102

Claims 14, 15, and 19-22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Eisen et al. For reasons of record the rejection of claims 14, 15, and 19-22 are maintained. With further clarification below.

The “comparison matrix”, as now amended, is indistinguishably the same as a “distance matrix” or to such extent that they are indistinguishable and thus, the rejections under 35 U.S.C. 102 of claims 14, 15, and 19-22 as being anticipated by Eisen et al. (Paper No. 16, mailed 13 August 2002) is maintained based upon the following definitions applicants have provided for within the disclosure for “context vectors”/“sequence data”. The specification defines “The context vector will be of a very high-dimension, so as to represent many attributes of the protein. The context vectors are used to visualize the data set to find related or unrelated attributes of the proteins” (page 11, lines 19-21), the specification further defines context vector as “any living

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material, from organism to microbe, could be represented using the context vectors of the present invention. Further, the present invention is not limited to the biosciences, and any material or energy could also be represented" (page 22, lines 14-17). Therefore, according to the definition provided for in the specification anything maybe represented as a context vector (i.e. gene expression data), wherein the specification does not preclude expression data and does not provide limitations to sequence data (i.e. claim 14, line 3).

Claims Rejected Under 35 U.S.C. § 103

Claims 14-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Eisen et al. taken in view of Altschul et al. For reasons of record the rejection of claims 14-17 and 19-22 as being unpatentable over Eisen et al. taken in view of Altschul et al. are maintained. The species election requirement set forth in Paper No. 9, mailed May 2002, has been vacated. Therefore, claim 18 (directed to protein) is now included in the rejection under 35 U.S.C. § 103 (a).

As reiterated from the previous office action in Paper No. 16, mailed 13 August 2002, Eisen et al. fails to describe the utilization of a Basic Alignment Search Tool or expectancy to compare biopolymer material (i.e. DNA). Altschul et al. describes the Basic Alignment Search Tool for rapid sequence comparison (Abstract).

Thus, it would have been obvious to someone of ordinary skill in the art at the time of the invention to bring out the inherent structures in data to correlate sequence similarity with sequence expression levels to convey the quantitative information more effectively by practicing Eisen et al. with Altschul et al. since Altschul et al. indicates that the Basic Alignment Search Tool can be applied to DNA sequence similarity analysis and Eisen et al. states the need to find

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alternative algorithms to more effectively determine inherent structures in the data (page 14867, column 2, lines 4-8). In addition, applicants disclosure defines “context vector”/”sequence data” in such a broad and general concept that said “context vectors”/”sequence data” maybe represented as anything (refer to the above 35 U.S.C. § 102 Rejection).

OBJECTION OF DISCLOSURE

The disclosure is objected to because of the following informalities:

The amendments to the specification to remove the hyperlink objections were not entered, as the amendments maintain a hyperlink. The following objections are reiterated from Paper No. 16, mailed 13 August 2002:

“The disclosure is objected to because it contains an embedded hyperlinks and/or other forms of browser-executable code and delete them on pages 15 and 18, lines 22 and 15, respectively. Embedded hyperlinks and/or other form of browser-executable code are impermissible in the text of the application as they represent an improper incorporation by reference. Applicants are required to delete the embedded hyperlink and/or other form of browser-executable code. See M.P.E.P. § 608.01 and § 608.01(p).”

A suggest format, for example, is “World Wide Web Address: expasy.ch/prosite”.

Appropriate Correction Is Requested.

No Claims Are Allowed.

EXAMINER INFORMATION

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the

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Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 C.F.R. § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Channing S. Mahatan whose telephone number is (703) 308-2380. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Woodward, Ph.D., can be reached on (703) 308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina M. Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

Date: *April 7, 2003*

Examiner Initials: *CSM*

Marianne P. Allen
MARIANNE P. ALLEN
PRIMARY EXAMINER
GROUP 1800 *AU 1631*